[English]

Power Reactors

824. SHRI MUKHTAR ANIS: Will the PRIME MINISTER be pleased to state:

(a) the designed and capacity utilisation of the power reactors presently in operation, unit-wise;

(b) the reasons for low output;

(c) whether these reactors produce plutonium as a by-product;

(d) whether these reactors are subject to fullscope international safeguards;

(e) whether Russia has offered to export nuclear reactors to India on a turn key basis; and

(f) whether these reactors will also produce plutonium and will be subject to similar safeguards?

THE MINISTER OF STATE OF THE MINISTRY OF PLANNING AND PROGRAMME IMPLEMENTATION AND MINISTER OF STATE OF THE MINISTRY OF SCIENCE AND TECHNOLOGY (SHRI YOGINDER K. ALAGH): (a) Details of capacity utilisation of the nuclear power plants during 1995-96 and 1996-97 upto January, 1997 are given in the following table:

Sl.No.	Station/Unit		Original design capacity MWe	Present rated capacity MWe	Capacity 1995-96	Factor(%) 1996-97 upto 31.1.97
1.	Tatapur Atomic					
	Power Station	Unit-1	210	160	79%	18%
		Unit-2	210	160	32%	42%
2.	Madras Atomic					
	Power Station	Unit-1	235	170	76%	46%
		Unit-2	235	170	18%	85%
3.	Narora Atomic					
	Power Station	Unit-1	235	220	67%	65%
		Unit-2	220	220	75%	71%
4.	Kakrapar Atomic					
	Power Station	Unit-1	220	220	58%	85%
		Unit-2	220	220	70%	82%

(b) The low capacity factor (C.F.) of TAPS-1 during 1996-97 is due to a long shut down taken for refuelling and core shroud inspection. The low C.F. of TAPS-2 was due to a long shut down for refuelling and core shroud inspection and the long outage following generator rotor ground fault and also lowering of maximum power level since October, 1996, consequent on single recirculation loop operation. The low C.F. of MAPS-1 during 1996-97 and of MAPS-2 during 1995-96 are due to extensive in-service inspection of coolant channels in these units. The inspections referred to are from the point of view of assuring safety. The above nuclear power plants in operation have achieved a good overall annual capacity factor of 60% during 1995-96 and have further improved their performance during 1996-97 by achieving an overall capacity factor of 64% upto 31.1.1997 which is expected to reach 66% upto March, 1997. In particular, the new generating units, namely NAPS-1&2 and KAPS-1&2 have performed very well during these two years.

(c) The spent fuel from these reactors when reprocessed will generate plutonium.

(d) The indigenously built nuclear power plants namely MAPS-1&2, NAPS-1&2 and KAPS-1&2 are not subject to international safeguards. However, TAPS-1&2 and RAPS-1&2 built in cooperation with USA and Canada respectively, are under IAEA safeguards. But these are not fullscope safeguards but are limited to these facilities only.

(e) The Russian Federation has offered to supply 2x1000 MWe VVER type nuclear power station on technical collaboration basis with credit on soft terms.

(f) Spent fuel from this reactor which will produce plutonium on reprocessing will be subject to safeguards as described above.